

### REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Examiner is also thanked for the telephone interview with Applicants' representative on June 24, 2008. The prior art references cited in the Office Action dated March 28, 2008 were discussed, but no agreement was reached.

Claims 1 and 3 are hereby amended. Claim 2 is canceled without prejudice or disclaimer. Accordingly, claims 1 and 3-17 are currently pending, of which claims 4-17 are withdrawn from consideration. Reexamination and reconsideration of the pending claims are respectfully requested.

The Examiner rejected claims 1-3 under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants have amended claims 1 and 3 for the sole purpose of expediting prosecution. Applicants respectfully submit that claims 1 and 3 now more clearly define the subject matter. Applicants, therefore, respectfully request that the Examiner withdraw the rejection.

The Office Action rejected claims 1-3 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0093077 to Jung et al. (*Jung*) in view of U.S. Patent Application Publication No. 2004/0048978 to Okada et al. (*Okada*) and U.S. Patent Application Publication No. 2004/0048004 to Hosaka et al. (*Hosaka*). Claim 2 is canceled, as the rejection of claim 2 is moot. Applicants respectfully traverse the rejection of claims 1 and 3.

As required in M.P.E.P. § 2143.03, in order to "establish *prima facie* obviousness of the claimed invention, all the limitations must be taught or suggested by the prior art." *Jung* and *Hosaka*, either singularly or in combination, fail to teach or suggest every element of claims 1 and 3, and thus, cannot render these claims obvious.

Claim 1 recites, among other things, that "Y is a di-valent organic group derived from aliphatic, alicyclic, or non-conjugated aromatic diamines which have 3-30 carbon atoms and side chains, wherein the side chains have one or more ethylenically unsaturated bonds capable of being crosslinked by a radical;". *Jung* fails to teach or suggest at least this feature of claim 1. In fact, the Office Action admits that "Jung does not teach ... that Y has ethylenically unsaturated bonds." *Office Action*, page 4. *Okada* fails to cure the deficiency of *Jung*. The Office Action

states that “Okada discloses ... diamine, having ethylenically unsaturated side chain (the same diamines used in the application, see line 0150.” *Id.* Applicants respectfully disagree. The diamines listed in *Okada* ¶0150 are all conjugated aromatic diamines (e.g., chalcone derivatives, cinnamic acid derivatives), not aliphatic, alicyclic, or non-conjugated aromatic diamines having one or more ethylenically unsaturated bonds, as required by claim 1. *Hosaka* also fails to cure the deficiency of *Jung*. *Hosaka* is silent with respect to aliphatic, alicyclic, or non-conjugated aromatic diamines. In fact, the Office Action cites *Hosaka* for disclosing alicyclic tetracarboxylic acid. *Office Action*, page 5.

Claim 1 also recites, among other things, that “the acid value of said reactive transparent polyimide precursors is within a range of 30 to 200 mg KOH/g.” *Jung* fails to teach or suggest at least this feature of claim 1. The Office Action states “Jung discloses that the ratio between Hydrogen atom and acid-dissociable group is with the broad range of 0.1-1 (see Claim 7), which gives the acid value of the precursor within the range of 30 to 200 mg KOH/g.” *Office Action*, page 3. Applicants respectfully disagree. It is not clear how the ratio of Hydrogen atom and acid-dissociable group relates to any specific acid value, and in particular, the specific range of acid values recited in claim 1. Applicants respectfully request that the Examiner withdraw this rejection or clearly explain this relationship. For at least the reasons given above, neither *Okada* nor *Hosaka* cures the deficiencies of *Jung*.

Furthermore, claim 1 is expressly directed to a “reactive transparent polyimide precursor having the structure in the following Chemical Formula 1.” The presence of the ethylenically unsaturated bonds, as claimed, enables the claimed precursor to form a negative-type photosensitive resin composition. See, for example, *Specification*, page 16, lines 19-15, and page 19, lines 14-17. In contrast, *Jung* teaches precursors for positive-type photosensitive polyimides. *Jung* further states that “photosensitive polyimides are preferred over negative-type photosensitive polyimides, because positive-type photosensitive polyimides exhibit superior resolution.” *Jung*, paragraph 0011. Therefore, one of ordinary skill in the art would, therefore, not rely on *Jung* to arrive at the claimed precursor.

Accordingly, claim 1 is patentable over the combined teaching of *Jung*, *Okada*, and *Hosaka*. Claims 2 and 3, which depend from claim 1, are also patentable for at least the same

reasons as claim 1. Applicants, therefore, respectfully request that the Examiner withdraw the rejection.

The application is in condition for allowance. Early and favorable action is respectfully solicited. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: June 26, 2008

Respectfully submitted,

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